



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,248	05/31/2006	Tatsuya Shogaki	2006-0756A	1793
513 7590 11/12/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021				
EXAMINER PRITCHETT, JOSHUA L				
ART UNIT		PAPER NUMBER		
2872				
MAIL DATE		DELIVERY MODE		
11/12/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/581,248

**Applicant(s)**

SHOGAKI ET AL.

**Examiner**

JOSHUA L. PRITCHETT

**Art Unit**

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 28-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### **DETAILED ACTION**

This action is in response to Amendment filed August 22, 2008. Applicant cancelled claims 1-27 and added claims 28-63

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28-30, 34-36, 40-42 and 58-60 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakasendou (JP 2002/123966) in view of Morikawa (US 2005/0040340).

Regarding claims 28-30, Nakasendou discloses at least one optically anisotropic (para. 0008) crystal plate and at least one substrate (21A) are stuck together in a state in which a principal face of the optically anisotropic crystal plate and a principal face of the substrate are perpendicular to the direction of the transmission of ray (Fig. 5) the optically anisotropic crystal plate or the substrate is used as an end face on a ray incident side and another optically anisotropic crystal plate or another substrate (21B) that is thinner than the optically anisotropic crystal plate or the substrate that is the end face on the ray incident is stuck onto the optically

anisotropic crystal plate or the substrate (Fig. 2C). Nakasendou further teaches the light can pass through the filter in either direction (Fig. 5; seen arrows on each side of element (4)).

Nakasendou teaches the invention as claimed with substrate thickness of 5 mm (para. 0007) but lacks reference to a UV adhesive. Morikawa teaches the use of a UV adhesive with a thickness no more than 1/20 of the thickness of the plate and the substrate (para. 0141). Morikawa teaches the thickness of the adhesive is 2.5 microns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Nakasendou invention include the adhesive of Morikawa for the purpose of securely sticking the substrate and plate together.

Regarding claims 34-36, Nakasendou discloses the substrate is glass (para. 0005).

Regarding claims 40-42, Nakasendou discloses the substrate is used for both end principal faces of the optical filter and a portion of the substrate is given an optical coating (Figs. 2a-2d).

Regarding claims 58-60, Nakasendou discloses the claimed structural limitations and therefore is capable of performing all the claimed functional limitations (MPEP 2114).

Claims 46-48 and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakasendou (JP 2002-123966) in view of Morikawa (US 2005/0040340) as applied to claims 28-30 above further in view of Ito (US2003/0218709).

Nakasendou in combination with Morikawa teaches the invention as claimed but lacks reference to substrates with the same thickness and plates with different thicknesses. Ito teaches the substrates having the same thickness (Fig. 1) and the crystal plates having different thicknesses (para. 0398-0399). It would have been obvious to one of ordinary skill in the art at

the time the invention was made to have the Nakasendou in combination with Morikawa invention include the thicknesses of Ito for the purpose of controlling the polarization transmission of the filter.

Claims 31-33, 37-39, 43-45, and 61-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakasendou (JP 2002-123966) in view of Morikawa (US 2005/0040340) and Ishikawa (US 2003/0025981).

Regarding claims 31-33, Nakasendou discloses at least one optically anisotropic (para. 0008) crystal plate and at least one substrate (21A) are stuck together in a state in which a principal face of the optically anisotropic crystal plate and a principal face of the substrate are perpendicular to the direction of the transmission of ray (Fig. 5) the optically anisotropic crystal plate or the substrate is used as an end face on a ray incident side and another optically anisotropic crystal plate or another substrate (21B) that is thinner than the optically anisotropic crystal plate or the substrate that is the end face on the ray incident is stuck onto the optically anisotropic crystal plate or the substrate (Fig. 2C). Nakasendou further teaches the light can pass through the filter in either direction (Fig. 5; seen arrows on each side of element (4)). Nakasendou teaches the invention as claimed but lacks reference to a UV adhesive and amorphaously bonding. Morikawa teaches the use of a UV adhesive (para. 0141). Ishikawa teaches a coating deposited on a phase plate using ion deposition (para. 0044). The current specification states that amorphous bonding is achieved through ion deposition (para. 0060). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Nakasendou invention include the adhesive of Morikawa for the purpose of securely

sticking the substrate and plate together. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Nakasendou invention include the amorphously bonded coating as taught by Ishikawa for the purpose of achieving even thickness to reduce incident light loss to scattering.

Regarding claims 37-39, Nakasendou discloses the substrate is glass (para. 0005).

Regarding claims 43-45, Nakasendou discloses the substrate is used for both end principal faces of the optical filter and a portion of the substrate is given an optical coating (Figs. 2a-2d).

Regarding claims 61-63, Nakasendou discloses the claimed structural limitations and therefore is capable of performing all the claimed functional limitations (MPEP 2114).

Claims 49-51 and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakasendou (JP 2002-123966) in view of Morikawa (US 2005/0040340) and Ishikawa (US 2003/0025981) as applied to claims 28-30 above further in view of Ito (US2003/0218709).

Nakasendou in combination with Morikawa and Ishikawa teaches the invention as claimed but lacks reference to substrates with the same thickness and plates with different thicknesses. Ito teaches the substrates having the same thickness (Fig. 1) and the crystal plates having different thicknesses (para. 0398-0399). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Nakasendou in combination with Morikawa and Ishikawa invention include the thicknesses of Ito for the purpose of controlling the polarization transmission of the filter.

***Response to Arguments***

Applicant's arguments filed August 22, 2008 have been fully considered but they are not persuasive.

Applicant argues Morikawa fails to teach an anisotropic crystal plate. This limitation is taught by Nakasendou as stated in the rejection above. Morikawa is used to teach a UV curable adhesive with a 2.5 micron thickness. The thickness of the Nakasendou plate is 5 mm. Therefore the thickness of the adhesive would be no more than 1/20 of the plate thickness.

Applicant's arguments, see Amendment, filed August 22, 2008, with respect to the rejection(s) of claim(s) 31-33 under Nakasendou have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ishikawa. Applicant presented an entirely new claim and argued the Nakasendou reference did not apply to the new claim. The examiner agrees. The Ishikawa reference is added to the record to teach some of the limitations present in the newly presented claim.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA L. PRITCHETT whose telephone number is (571)272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joshua L. Pritchett/  
Primary Examiner  
Art Unit 2872